

North-of-the-Delta
Offstream Storage Investigation

Progress Report

Appendix K: Survey for State and Federally Listed Avian Species at Four Proposed Offstream Storage Reservoir Locations

April 2000

Integrated
Storage
Investigations

CALFED
BAY-DELTA
PROGRAM

CONTENTS

SUMMARY

INTRODUCTION

AUTHORITY

SCOPE OF THE STUDY

HABITATS WITHIN THE PROJECT AREAS

STUDY METHODS

RESULTS AND DISCUSSION

State and federally Listed species

California Species of Special Concern and federal Migratory Non-game Birds
of Management Concern

STUDY NEEDS

REFERENCES CITED

ORGANIZATION

ATTACHMENTS

Attachment A. Avian Transect Field Data Sheet

Attachment B. Species Occurrence Records Derived From The Natural Diversity
Database

Attachment C. Species Occurrence Predictions Derived From The California Wildlife
Habitat Relationships Database

Attachment D. Species Occurrence Predictions Derived From The U. S. Fish and
Wildlife Service Lists

Attachment E. Preliminary Bird Species Lists For Proposed Offstream Storage
Locations

Attachment F. State And Federal "Listed" Species Densities Tabulated By Reservoir
Location

TABLES

Table 1. Summary of vegetative communities at the four proposed offstream storage
reservoirs

Table 2. Offstream Storage Reservoir Avian Transect Lengths and Initiation Date

Table 3. Seasonal breakdowns

Table 4. State and federally Listed avian species know to occur in Tehama, Glenn,
and Colusa counties

Table 5. State and federally Listed avian species occurrence at the proposed off-
stream storage reservoirs

Table 6. Summary of southern bald eagle densities at the proposed offstream
storage reservoirs (density in birds per square mile)

Table 7. Summary of bank swallow densities at the proposed offstream storage
reservoirs (density in birds per square mile)

Table 8. Summary of greater sandhill crane densities at the proposed offstream
storage reservoirs (density in birds per square mile)

- Table 9. California Species of Special Concern and federal Migratory Non-game Birds of Management Concern occurrence at the proposed offstream storage reservoirs
- Table 10. Summary of American bittern densities at the proposed offstream storage reservoirs (density in birds per square mile)
- Table 11. Summary of American white pelican densities at the proposed offstream storage reservoirs (density in birds per square mile)
- Table 12. Summary of burrowing owl densities at the proposed offstream storage reservoirs (density in birds per square mile)
- Table 13. Summary of California gull densities at the proposed offstream storage reservoirs (density in birds per square mile)
- Table 14. Summary of California horned lark densities at the proposed offstream storage reservoirs (density in birds per square mile)
- Table 15. Summary of common loon densities at the proposed offstream storage reservoirs (density in birds per square mile)
- Table 16. Summary of Cooper's hawk densities at the proposed offstream storage reservoirs (density in birds per square mile)
- Table 17. Summary of double-crested cormorant densities at the proposed offstream storage reservoirs (density in birds per square mile)
- Table 18. Summary of ferruginous hawk densities at the proposed offstream storage reservoirs (density in birds per square mile)
- Table 19. Summary of golden eagle densities at the proposed offstream storage reservoirs (density in birds per square mile)
- Table 20. Summary of lark sparrow densities at the proposed offstream storage reservoirs (density in birds per square mile)
- Table 21. Summary of Lawrence's goldfinch densities at the proposed offstream storage reservoirs (density in birds per square mile)
- Table 22. Summary of loggerhead shrike densities at the proposed offstream storage reservoirs (density in birds per square mile)
- Table 23. Summary of long-billed curlew densities at the proposed offstream storage reservoirs (density in birds per square mile)
- Table 24. Summary of merlin densities at the proposed offstream storage reservoirs (density in birds per square mile)
- Table 25. Summary of norther harrier, densities at the proposed offstream storage reservoirs (density in birds per square mile)
- Table 26. Summary of osprey densities at the proposed offstream storage reservoirs (density in birds per square mile)
- Table 27. Summary of prairie falcon densities at the proposed offstream storage reservoirs (density in birds per square mile)
- Table 28. Summary of sharp-shinned hawk densities at the proposed offstream storage reservoirs (density in birds per square mile)
- Table 29. Summary of short eared owl densities at the proposed offstream storage reservoirs (density in birds per square mile)
- Table 30. Summary of tricolored blackbird densities at the proposed offstream storage reservoirs (density in birds per square mile)

Table 31. Summary of white-tailed kites densities at the proposed offstream storage reservoirs (density in birds per square mile)

FIGURES

- Figure 1. Proposed offstream storage reservoir locations
- Figure 2. Typical annual grassland habitat (Colusa Cell)
- Figure 3. Typical land use within blue oak habitat (Sites Reservoir)
- Figure 4. Typical blue oak woodland habitat (Sites Reservoir)
- Figure 5. Typical chaparral habitat (Red Bank Project)
- Figure 6. Typical riparian habitat (Sites Reservoir)
- Figure 7. Avian transect locations and habitats at Sites Reservoir
- Figure 8. Avian transect locations and habitats at Colusa Reservoir Cell
- Figure 9. Avian transect locations and habitats at Newville Reservoir
- Figure 10. Avian transect locations and habitats at the Red Bank Project
- Figure 11. Funks Reservoir and associated habitats